the materials shall be maintained at all times based on the approved working load.

(b) *Turning out.* (1) Mechanical davits shall be designed so that they may be operated from the full inboard to the full outboard position when the lifeboat is fully equipped, but not loaded with persons, it being assumed that the vessel is heeled 15 degrees in either direction and with a 10-degree trim.

(2) Gravity davits shall be designed so that they may be operated automatically from the full inboard to the full outboard position when the lifeboat is fully equipped, but not loaded with persons, it being assumed that the vessel is heeled 15 degrees in either direction and with a 10-degree trim. This operation shall be accomplished by merely releasing the brake of the lifeboat winch.

(c) *Materials.* (1) Structural steel made by the open-hearth or electric furnace process shall be in accordance with ASTM A 36/A 36 M (incorporated by reference, see §160.032–1).

(2) Steel castings not intended for fusion welding shall be in accordance with ASTM A 36/A 36 M (incorporated by reference, see §160.032–1), Grades U–60–30, 60–30, 65–30, 65–35, and 70–36.

(3) Steel castings intended to be fabricated by fusion welding shall be in accordance with ASTM Standard Specification A 216 (incorporated by reference, see §160.032–1), Grades WCA and WCB.

(4) Cast iron shall not be used in the construction of davits.

(5) Special consideration shall be given to the use of other materials. Proper affidavits concerning these materials will be required.

(d) *Bearings.* Bearings of davits shall be of non-ferrous metal, or shall be of the roller or ball-bearing type. Positive means of retaining the bearings in position and of lubricating same shall be provided except that self-lubricated bearings in sheaves of manila rope blocks will be acceptable. The manufacturer shall furnish a lubrication chart for each davit together with a plate attached to the davit indicating the lubricants recommended for extremes in temperature.

(e) *Guards.* All moving parts shall have suitable guards.

(f) *Welding.* Welding, when employed, shall be performed by welders certified by the U.S. Coast Guard, American Bureau of Shipping, or U.S. Navy Department, and the electrodes used shall be of an approved type.

[CGFR 49–18, 14 FR 5112, Aug. 17, 1949, as amended by CGFR 65–16, 30 FR 10898, Aug. 21, 1965; CGFR 65–9, 30 FR 11466, Sept. 8, 1965; USCG–1999–5151, 64 FR 67184, Dec. 1, 1999; USCG–2000–7790, 65 FR 58463, Sept. 29, 2000]

### §160.032–4 Capacity of davits.

(a) Davits shall be approved for a working load after it has been demonstrated by detailed calculations that this working load can be carried with a minimum factor of safety of six based on the ultimate strength of the materials. It will also be necessary to conduct the tests specified in §160.032–5.

(b) [Reserved]

[CGFR 49–18, 14 FR 5113, Aug. 17, 1949]

### §160.032–5 Inspection and testing of davits.

(a) *Material testing.* (1) Where davit arms and frames are fabricated of steel castings, an inspector shall be present at the foundry where such castings are made to witness the tests prescribed by the applicable specification. The manufacturer shall furnish an affidavit stating that the material complies with the requirement of the specification noted in §160.032–3(c) (2) or (3). The inspector shall stamp the casting with the letters U.S.C.G., the Marine Inspection Office identification letters, the letters F.T., and the date of inspection.

(2) The manufacturer shall furnish an affidavit stating that the structural steel complies with the requirements of the specification noted in §160.032–3(c)(1).

(3) The affidavits referred to above shall be obtained from the foundry or mill supplying the material.

(b) *Factory tests for initial approval.* (1) Mechanical davits shall be tested for strength and operation at the place of manufacture in the presence of an inspector. The davits shall be completely assembled. The tests to be conducted are as noted in paragraphs (b) (2) through (4) of this section.

(2) A weight equal to 2.2 times the working load shall be suspended from the eye or end of the davit arm. With